

## **REMARKS**

Claims 1-5, 7-11 and 18 have been amended to better define the invention and put the application in better condition for appeal. The amendments are support by the specification. No new matter has been added.

1. Claims 1-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,778,381 A to Sandifier in view of U.S. Patent No. 6,067,486 A to Aragonés et al. The claims as amended should be allowed for at least the following reasons.

Sandifier and Aragonés et al. fail to disclose, alone or in combination, at least the following features recited in claims 1 and 18. With regard to claim 1, Sandifier does not disclose or suggest “retrieving, by a data processor, a desired configuration of the mechanical equipment” and “retrieving, by the data processor, an actual configuration of mechanical equipment.” With regard to claim 18, Sandifier does not disclose or suggest “a data processor adapted to retrieve the desired configuration from the desired configuration database and to retrieve the actual configuration from the actual configuration database.”

Sandifier discloses a maintenance and repair information system that allows users to perform keyword searches of publications related to aircrafts. See Sandifier, Col 54, lines 20-30 (“No additional functionality is provided over performing a publication search selecting every publication type and adding a word search.”) Aragonés et al. fails to fill the gap. Aragonés et al. discloses a system that retrieves an actual configuration of an aircraft engine, but the Aragonés et al. system fails to disclose or suggest retrieving a desired configuration of mechanical equipment. The system of Aragonés et al. discloses calculating the life of a part for an actual configuration of the aircraft engine, but does not disclose a system that retrieves “a desired configuration of the mechanical equipment.” Therefore, neither Sandifier nor Aragonés et al., alone or in combination disclose retrieving “a desired configuration” and “an actual configuration” of mechanical equipment. For at least these reasons, Applicants respectfully request that the rejection to claims 1 and 18 be withdrawn.

Sandifier and Aragonés et al. fail to disclose, alone or in combination, at least the following additional features recited in claims 1 and 18. Sandifier and Aragonés et al. do not disclose or suggest, with regard to claim 1, “comparing, electronically with the data processor, the desired configuration with the actual configuration to determine if the actual configuration complies with the desired configuration.” With regard to claim 18, Sandifier and Aragonés et al., alone or in combination, fail to disclose or suggest a data processor adapted “to determine if the actual configuration complies with the desired configuration.” Sandifier discloses a system that determines if a publication describing diagnostic procedures includes a user-specified search term or terms. Sandifier, Col. 54, lines 20-48. A diagnostic or troubleshooting procedure analyzes the aircraft to determine whether it is performing in accordance with its actual configuration, i.e. whether the equipment is performing according to specifications. In other words, at most Sandifier discloses diagnostic procedures to identify faulty parts in the actual configuration.

Aragonés et al. fails to fill the gaps. Aragonés et al. discloses a system that retrieves engine configuration data for a plurality of limited life parts for an aircraft engine, retrieves service requirement data for at least one of the plurality of limited life parts, and automatically determines a remaining life for the part. See Aragonés et al., Abstract. The system of Aragonés et al. does not, however, compare, as recited in claim 1, “the desired configuration with the actual configuration to determine if the actual configuration complies with the desired configuration,” nor does the system, as recited in claim 18, “determine if the actual configuration complies with the desired configuration.” Therefore, neither Sandifier nor Aragonés et al., alone or in combination, disclose at least this additional feature. For at least this additional reason, Applicants respectfully request that the rejection to claims 1 and 18 be withdrawn.

Moreover, Sandifier and Aragonés et al. fail to disclose, alone or in combination, at least the following additional features recited in claims 1 and 18. Sandifier does not disclose, as recited in claim 1, “generating, by the data processor, an upgrade requirement plan for upgrading the actual configuration to

the desired configuration if the actual configuration is noncompliant.” Nor does Sandifier disclose, as recited in claim 18, that the data processor is adapted “to generate an upgrade requirement plan for upgrading the actual configuration to the desired configuration if the actual configuration is noncompliant.” Aragonés et al. fails to fill the gap. Aragonés et al. discloses a system that generates a repair planning document based on calculated remaining life for an aircraft part. In contrast, the “upgrade requirement plan” recited in claims 1 and 18 is generated “for upgrading the actual configuration to the desired configuration if the actual configuration is noncompliant.”

Accordingly, for at least this additional reason, Applicants respectfully request that the rejection of claims 1 and 18 be withdrawn.

2. Claims 2-17 depend, directly or indirectly, from claim 1, and claims 19-27 depend, directly or indirectly, from claim 18. Therefore, for at least the reasons discussed above with regard to amended independent claims 1 and 18, Applicants respectfully request that the rejection to claims 2-17 and 19-27 also be withdrawn.

Moreover, additional features of the claims provide additional grounds for patentability. For example, neither Sandifier nor Aragonés et al., alone or in combination, disclose or suggest “obtaining a required part for the desired configuration and scheduling human resources consistent with availability of the required part,” with regard to claim 4, “procuring a required assembly for the desired configuration and scheduling human resources consistent with the availability of the required assembly,” with regard to claim 5. Although Sandifier discloses maintenance scheduling software, Sandifier fails to disclose or suggest obtaining a “part” or “assembly” included in a “desired configuration.”

Sandifier and Aragonés et al., alone or in combination, also fail to disclose or suggest a system “wherein the desired configuration includes configuration data on at least one of the following configuration attributes: equipment identifier, equipment description, assembly identifier, assembly description, part identifier, part description data, installed location data, installed position data, installation

date, utilization history data, maintenance history data, longevity information, part specification data, assembly specification data, and equipment data,” as recited in claim 6, “wherein the desired configuration includes configuration data on at least one of the following configuration attributes: equipment identifier, equipment description data, assembly identifier, assembly description data, part identifier, part description data, installed location data, installed position data, installation date, utilization history data, maintenance history data, longevity information, part specification data, assembly specification data, and equipment specification data,” as recited in claim 19, or “wherein the actual configuration in the configuration database includes configuration data on at least one of the following configuration attributes: equipment identifier, equipment description data, assembly identifier, assembly description data, part identifier, part description, installed location data, installed position data, installation date, utilization history data, maintenance history data, longevity information, part specification data, assembly specification data, and equipment specification data,” as recited in claim 20. Although Sandifier does disclose part information, Sandifier fails to disclose a “desired configuration” or “actual configuration” including the claimed data.

Where Official Notice is taken to reject a dependent claim, the Office Action fails to show a teaching or suggestion in any reference to make the features of the dependent claims obvious in a system including the features of the independent claims. If these rejections are to be maintained, Applicant’s respectfully request a new Office Action so that we can respond appropriately to the rejection. For example, claim 17 recites “The method according to claim 1 further comprising the step of managing disposition of a removed component of the mechanical equipment.” The Office Action takes Official Notice that it is old and well-known to consider disposal and salvage responsibilities when maintaining, updating, replacing, and repairing equipment. However, no teaching or suggestion is cited to show how the recited claim language would be obvious in a system including the features of claim 1.

Other features of the dependent claims also provide grounds for overcoming these rejections. For example, in rejecting claims 7-9, the Office Action takes Official Notice that it is old and well-known in the mechanical arts to test parts *after* routine maintenance or repair. However, the claims recite a “desired configuration” based on “monitoring operational performance of a part,” with respect to claim 7, “monitoring operational performance of an assembly,” with respect to claim 8, and “monitoring operational performance of the mechanical equipment,” with respect to claim 9. The system of claim 1 “generat[es], by the data processor, an upgrade requirement plan for upgrading the actual configuration to the desired configuration if the actual configuration is noncompliant.” Applicants respectfully note that monitoring a newly installed part fails to show the claimed feature of “generating, by the data processor, an upgrade requirement plan for upgrading the actual configuration to the desired configuration” “wherein the desired configuration is based upon” “monitoring operational performance of an assembly”, with respect to claim 7, “monitoring operational performance of an assembly,” with respect to claim 8, or “monitoring operational performance of the mechanical equipment,” with respect to claim 9.

In rejecting claims 10-11, the Office Action takes Official Notice that updating a configuration with the latest lifetime expectation of a new part ensures that the element will not be unnecessarily replaced before its scheduled replacement. However, claim 10 recites a “desired configuration is based on a substituted part with a greater longevity substituted for a part with a lesser longevity.” Similarly, claim 11 calls for a “desired configuration is based on a substituted assembly with a greater longevity substituted for an assembly with a lesser longevity.” Applicants respectfully point out that these features have not been addressed and the claims do not recite a lifetime expectation to be included in the configuration.

Sandifier and Aragonés et al., alone or in combination, also fail to disclose “updating the desired configuration based on engineering change,” with respect to claim 12 and “updating the desired configuration to facilitate compliance with a regulatory requirement,” with respect to claim 13. Although Sandifier does

disclose manufacturer and governmental updates to aviation maintenance publications, nowhere does Sandifier disclose or suggest "updating the desired configuration based on engineering change," as recited in claim 12 or "updating the desired configuration to facilitate compliance with a regulatory requirement," as recited in claim 13.

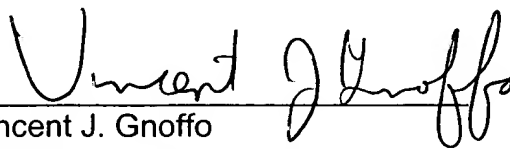
Sandifier nor Aragonés et al., alone or in combination, also fail to disclose "defining a template for configuration data prior to populating an actual configuration database and a desired configuration database with the configuration data," as recited in claim 16. Although Sandifier discloses data configuration forms and it may be old and well-known in the database arts that fields within a database may be populated according to parameters set by the user, this combination fails to disclose the recited feature of "defining a template for configuration data prior to populating an actual configuration database and a desired configuration database with the configuration data" as used in a system including the features of claim 1.

For at least these additional reasons, it is respectfully requested that the rejections to claims 4-13, 16, 17, 19 and 20 be withdrawn.

### **CONCLUSION**

For at least all of the above reasons, Applicants submit that the pending claims are in condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to call the undersigned if it would expedite the prosecution of this application.

Respectfully submitted,

  
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